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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/666,545	09/21/2000	Kenneth N. Myers JR.	FE-00461	7582

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McGuire Woods LLP
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EXAMINER

STEVENS, THOMAS H

ART UNIT	PAPER NUMBER
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2123

DATE MAILED: 01/23/2004

2

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/666,545

Applicant(s)

MYERS ET AL.

Examiner

Thomas H. Stevens

Art Unit

2123

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/21/2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to because of the following:
 - Figures 1-10: Lines, numbers and letters not uniformly thick and well defined, clean, durable, and black (poor line quality).
 - Figures 3 and 6: Top and left margins are not acceptable.
 - Figures 1,8-10 should be labeled as prior art.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Priority

2. Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged. However, the provisional application upon which priority is claimed fails to provide adequate support under 35 U.S.C. 112 for claims 1-20 of this application.

2a The claims are not supported in the provisional application. The provisional application and the specification are substantially different. The provisional appears to contain two documents: "Exploring the Collaborative Engineering Environment as a Critical Multiplier" by the Myers and Nguyen, and the "Product Catalog Process" by Myers, Nguyen, Beckley, Mroczek and Plunkett.

2b Therefore, priority to the provisional is not granted because of the different inventive entity.

Information Disclosure Statement

3. The following listing of references in the specification is not a proper information disclosure statement: "Objects, Components and Frameworks with UML: The Catalysis Approach" by D.D'Souza et al (Addison-Wesley, Massachusetts, 1998), "Object-Orient Modeling and Design" by J. Rumbaugh, et al. (Prentice Hall, Englewood Cliffs, NJ, 1991) [pg. 13, lines 25-29 and 17-18; pg.14, lines 1-4, respectively]. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A (1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the examiner, on form PTO-892, has cited the references, they have not been considered.

Duty to Disclose All Prior Art

4. The examiner has found prior art, authored by Koonce-D et al, "*An Integrated Model for Manufacturing Information Exchange*" (17-18 May 1997) and Myers et al, "*Exploring the Collaborative Engineering Environment as a Critical Resource Multiplier*" (1998). The applicant is requested to provide similar papers, by the inventors, in any response to this action.

Claim Rejections - 35 USC § 112

5. Claims 1-4,8, 9, 11,13-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The following terms need redefining or rewording within the context of the claim.

Claim 1: "default environment" (pg.43. line 14)—indefinite.

Art Unit: 2123

Claim 2: "one or more other part objects" (pg.44, line 31)—vague.

Claims 3,4: "abstract component types" (pg. 44, lines 34 and 37, respectively)--vague.

Claim 8: "peer information" (pg 45, line 2)—vague.

Claim 9: "hypothetical components"—vague.

Claim 11: "and/or" (pg. 45, line 15)—indefinite.

Claim 13: "associating the captured information" (pg. 47, line 5)—vague and indefinite.

Claim 14: "components associated in the associating step" (pg.47, line 9)—vague.

Claim 15: "system components associated in the associating step" (pg.47, line 15) —
vague.

Claim Interpretation

6. Office personnel are to give claims their "**broadest reasonable interpretation**" in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969). See *also *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) ("During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow The reason is simply that during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed.... An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative. **The examiner interprets product catalog as a database and enterprise as company personnel.**

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1-20 are rejected under the judicially created doctrine of double patenting over claims 1-21 of U. S. Patent Application No. 09/631694 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: For example, claim 1(09/631694) discloses a

Art Unit: 2123

database defined by an associated information model for providing a persistent understanding of product and program information, assets and tools available in the enterprise (pg.32, lines 7-9); but doesn't disclose what type of database. However, claim 1 (09/666545) discloses the database as the objected-oriented database management system (ODBMS) as "managing an associative object model (program model) for providing a persistent understanding of product and program information, assets and tools available in the enterprise" (pg. 43, lines 7-10)

One of ordinary skill in the art at the time of invention would have known both of these applications are the same. Therefore, this is a double patenting rejection.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

10. Claims 1-20 are rejected under 35 U.S.C. 102(a) as being anticipated over the provisional application by Myers et al (1999). Since there are two different disclosers of priority in the application, priority cannot be claimed. Based on this fact, the disclosed information will be used as prior art against the application. Thus Myers et al is used in this art rejection.

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international

Art Unit: 2123

application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

12. Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Povilus (US 5,740,425 (1997)). Povilus teaches a data structure and method for creating, maintaining, and publishing multiple renditions of both electronic and printed, single and multi-manufacturer catalogs using a single product database. Also disclosed is an electronic catalog created using the data structure and methodology of the present invention. The data structure includes means for creating a product database and means for creating a Knowledgebase, which includes a concept structure for at least one product realm and a glossary. The concept structure includes at least one concept frame for defining classes of product groupings, where the concept frames include a plurality of concept nodes having relationships based upon characteristics of the products within the product realm. The product database preferably includes a listing of SKUs, each SKU corresponding to a product or a component of a product. The product database further includes product information for each associated SKU, and an identification of each concept node in which each SKU can be located. The

Art Unit: 2123

glossary is used for searching for a particular product or group of products having desired characteristics, and includes a plurality of phrases, at least one of which being a definer that links the phrase to one of the concept nodes (Abstract).

Claim 1: *A computer implemented product catalog for use in a web-centric (column 11, line 66-67 and column 12 lines 1-2) collaborative engineering environment (CEE) for providing an inter-enterprise collaborative mechanism for organizations developing and maintaining complex system products, the CEE providing a federated architecture linking multiple systems and applications together to enable collaboration among enterprise members, comprising: an object oriented database management system (ODBMS)(column 7, lines 22-25) managing an associative object model (product model) for providing a persistent understanding of product and program information, assets and tools available in the enterprise; a plurality of part objects forming a product catalog, the part objects being defined by the product model and stored in the ODBMS, wherein each part object has intrinsic characteristics (column 8, lines 45-53) corresponding to a default environment, the product catalog providing an application independent means for supporting engineering tools through intelligent interfaces; means for generating part references, where a part reference refers to a corresponding part object (column 4, lines 48-52) in the product catalog, and wherein the part reference has characteristics customized for a project that override or extend the intrinsic characteristics of its corresponding part object (figures 7-9); and means for linking members of the enterprise with part objects and customized part references via*

Art Unit: 2123

collaborative engineering environment (CEE), the CEE having a framework for collaboration which provides access control, security search mechanisms, concurrency control, versioning, information structuring, information mapping and exchange, wherein the information available to each member is information necessary for the member to complete role and team based tasks, and wherein the linking means comprises a plurality of tools, each tool communicating information with the ODBMS (column 5 lines 66-67 to column 7 lines 1- 36).

Claim 2: *A system as recited in claim 1, wherein a part objects is a collection of one or more other part objects (figure 2).*

Claim 3: *A system as recited in claim 1, wherein a part objects represent commercial-off-the-shelf (COTS) hardware (figure 6), electrical (figure 2), software, or abstract component types.*

Claim 4: *A system as recited in claim 1, wherein the product catalog supports (figure 12) part objects representing commercial-off-the-shelf hardware, electrical, software, and abstract component types.*

Claim 5: *A system as recited in claim 1, wherein the product catalog provides a single point of information management (figure 15:251) with unlimited application by reference.*

Art Unit: 2123

Claim 6: *A system as recited in claim 1, wherein the CEE enables members of the enterprise to capture technology (column 3, lines 25-29) and model information and associate the captured information with a system component for entry into the product catalog.*

Claim 7: *A system as recited in claim 6, wherein the parts and components in the product catalog are extensible to an existing user community in an enterprise (column 3, lines 39-42), the user; community requiring customization of parts for use in projects associated with the enterprise.*

Claim 8: *A system as recited in claim 1, wherein the product catalog provides a single extensible interface for peer information management systems (figure 15).*

Claim 9: *A system as recited in claim 1, wherein the product catalog supports part objects representing projected (figure 15: 246 and 249) or hypothetical components.*

Claim 10: *A system as recited in claim 1, wherein intrinsic information of a product catalog (column 8, lines 48-51) is augmented with implementation specific information.*

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(f) he did not himself invent the subject matter sought to be patented.

Art Unit: 2123

14. Claims 1-20 are rejected under 35 U.S.C. 102(f) because the applicant did not invent the claimed subject matter. It appears that a different entity ~~was~~ disclosed the provisional document: "*Exploring the Collaborative Engineering Environment as a Critical Multiplier*" by the Myers and Nguyen. Thus all claims are rejected based on different invented entity. MA

Claim Rejections - 35 USC § 103

15. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Povilus (US 5,740,425 (1995)) in view of Virgil (US 5,493,679 (1996)). Povilus teaches a data structure and method for creating, maintaining, and publishing multiple renditions of both electronic and printed, single and multi-manufacturer catalogs using a single

Art Unit: 2123

product database. Also disclosed is an electronic catalog created using the data structure and methodology of the present invention. The data structure includes means for creating a product database and means for creating a Knowledgebase, which includes a concept structure for at least one product realm and a glossary. The concept structure includes at least one concept frame for defining classes of product groupings, where the concept frames include a plurality of concept nodes having relationships based upon characteristics of the products within the product realm. The product database preferably includes a listing of SKUs, each SKU corresponding to a product or a component of a product. The product database further including product information for each associated SKU, and an identification of each concept node in which each SKU can be located. The glossary is used for searching for a particular product or group of products having desired characteristics, and includes a plurality of phrases, at least one of which being a definer that links the phrase to one of the concept nodes (Abstract). Although this electronic product lists current technology, Povilus doesn't teach the ability of users to manipulate, modify or change the initial data.

Virgil teaches a process for establishing a relationship between the Logistics Support Analysis Record (LSAR) database and a released engineering drawing database. The process includes establishing several database pointer tables for relating the drawings to appropriate end items, task and subtasks. As a result of the process, Logistics Support Analysis functions can be performed in less time, for less cost and with fewer errors. The query aspects of the LSAR database can be used to relate specific hardware to its maintenance procedures, special

Art Unit: 2123

tool requirements and special handling equipment. Source engineering documents are related to publications art, and engineering drawings are related to task/subtask. The process facilitates automated change notification procedures.

One of ordinary skill in the art at the time of invention would have combined Povilus' invention with Virgil. Since it would have been obvious to allow authorized users (Virgil: column 1, lines 27-31) to create and/or manipulate existing mechanical or electronic items/devices inside the database (Povilus: figure 15, 253), while having the ability to search and combine specified technical information, thus optimizing the quality and usefulness of the database in real-time.

Claim 11: *A method for customizing a product catalog for use by a project in a collaborative engineering environment (CEE) which provides an inter- enterprise collaborative mechanism for organizations developing and maintaining complex system products (Povilus: figure 2), and provides a federated architecture linking multiple systems and applications together to enable collaboration among enterprise members comprising: generating a product model for the project, wherein the product model defines project related informational elements and their corresponding characteristics, and wherein the project related informational elements may differ based on domain area; identifying elements (parts.)(Virgil: column 2, lines 1-22) existing in a enterprise-wide product catalog; customizing the existing parts for the project, by referring to default characteristics of the existing parts and when desired specifying overriding and/or extending part characteristics unique to the project; if necessary to fully implement the project product model, providing new parts for the product catalog;*

Art Unit: 2123

and integrating the project product model with domain-specific tools and application used by members of the enterprise, thereby enabling collaboration among enterprise members who have immediate access to information stored in the ODBMS(Povilus: column 7, lines 22-25) by other members, wherein each member performs domain specific tasks using customized tools and applications and stores results of their performed tasks in the ODBMS, thereby allowing access of their information by other members of the enterprise (Povilus: column 3, lines 25-29).

Claim 13: *A method as recited in claim 11, wherein the step of providing new parts, further comprises: capturing technology and model information by members of the enterprise (Povilus: column 3, line24-29); and associating the captured information with a system component for entry into the product catalog (Virgil: column 3, lines 46- 59).*

Claim 14: *A method as recited in claim 13, further comprising: entering new part objects into the product catalog (Povilus: figure 12), wherein the new part objects correspond to system components associated in the associating step (Virgil: column 3 lines 46-59).*

Claim 15: *A method as recited in claim 13, further comprising: entering updated part object information into the product catalog (Povilus: figure 12) when captured information results in necessary modification to an existing part and not identification of a new part,(Virgil: column 3 lines 46-59) wherein the updated part objects correspond to system components associated in the associating step.*

Art Unit: 2123

Claim 16: A method as recited in claim 13, wherein the new or updated part objects are reviewed by at least one member of the enterprise having authority to accept or reject the part objects, and wherein if a new or updated part object is rejected it is not entered into the product catalog, but if a new or updated part object is accepted (Virgil: column 11, lines 16-33), it is entered into the product catalog (Povilus: figure 12).

Claim 17: A method as recited in claim 16, further comprising notifying members (Virgil: column 11, lines 16-33) of the enterprise that new parts or part information (Povilus: figures 7-9) are available.

Claim 18: A method as recited in claim 17, wherein the step of notifying further comprises automatically updating project specific parts (Virgil: column 11, lines 16-33) and components with modified part information (Povilus: figures 7-9) for updated parts.

Claim 19: A method as recited in claim 11, further comprising: retrieving part information from the part catalog by members of a project within the enterprise (Povilus: column 3, lines 25-29); and customizing retrieved part information (Virgil: column 3, lines 46-59) for use in a project.

Claim 20: A method as recited in claim 19, wherein the step of customizing further comprises: maintaining desired default characteristics for retrieved part information; overriding default characteristics (Povilus: column 14, 23-30) for retrieved part information (Virgil: column 2, lines 57-59), as necessary to represent system

Art Unit: 2123

components of the project; and extending part information (Povilus: column 3, lines 14-16) with additional part characteristics, as necessary to represent system components of the project, the additional part characteristics being omitted from part information retrieved in the product catalog.

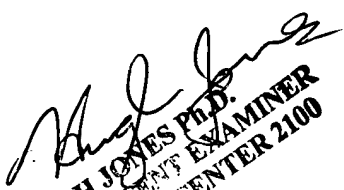
Correspondence Information

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Stevens whose telephone number is (703) 305-0365, Monday-Friday (8:00 am- 4:30 pm) or contact Supervisor Mr. Kevin Teska at (703) 305-9704.

Any inquires of general nature or relating to the status of this application should be directed to the Group receptionist whose phone number is (703) 305-3900.

January 9, 2004

THS
THS


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